

## NATIONAL CAVE AND KARST RESEARCH INSTITUTE

### MONTHLY UPDATE FOR JUNE 2004

#### PROGRESS MADE BY THE INSTITUTE STAFF AND PARTNERS THIS MONTH:

**Bulk mailing of the 2003 Annual Report** was sent by New Mexico Tech during June. Jim F. Wood of the NPS Geologic Resources Division placed the 2003 Annual Report on the website: <http://www2.nature.nps.gov/nckri/annual.htm>. Louise Hose (LH) and Tom Strong (TS) prepared documents to assist in preparation of a **Museum Contents Outline plan** being prepared by Frank Binney and Associates.

TS and LH attended the installation ceremony and reception for **John Lujan**, new Superintendent at **Guadalupe Mountain National Park**.

New Mexico Tech's Cave and Karst Studies Program gratefully accepted a **donation** on behalf of NCKRI of a nearly complete set of *NSS Bulletin/Journal of Cave and Karst Studies* publications from Jerry Vineyard, a geologist retired from the Missouri Geological Survey and an NSS member.

NCKRI staff prepared five presentations for the **National Speleological Society** National Convention in July.

TS, LH, and Lewis Land (LL) participated in cave swallow banding project at **Carlsbad Caverns NP** with project leader Rick Wiedenmann.

TS continued working on standardized **annual report format** for partners in **cooperative agreements**, working to ensure that format is consistent with reporting procedures in OMB Circular A-110.

TS submitted a proposal for a **research project on vertebrate species** use of caves in Carlsbad Caverns National Park and received a permit to proceed.

TS worked with Allen MacFarlane at **Kansas Geological Survey** to try to provide funding for karst mapping in Kansas as part of the **U.S. Karst Map Project**. He also prepared task order to arrange for transfer of funds to USGS for the national karst mapping project.

TS gave a brief presentation on NCKRI at **Escabrosa Grotto** meeting in Tucson, Arizona.

TS met with Noe Gonzalez (**BLM**-Carlsbad) to discuss research project on **vertebrate species use of caves**. TS prepared and submitted a formal proposal and received approval to proceed from Jim Goodbar.

Fifty-nine people enjoyed an entertaining and information lecture by Dr. **Arthur Palmer** of the State University of New York – Oneonta as the second presentation of the **NCKRI Lecture Series** in Carlsbad on June 28<sup>th</sup>. His show, titled *AMERICA'S GREATEST CAVES: EXPLORATION, GEOLOGY, AND ORIGIN OF CAVES IN THE GUADALUPE MOUNTAINS (NM), THE BLACK HILLS (SD), AND MAMMOTH CAVE REGION (KY)* provided an excellent overview of these 3 major national cave parks. NCKRI staff was also delighted to host Art and his geologist-partner-wife Peg at our current facility for an afternoon and at a reception following Art's talk.

A visit to **Carlsbad Cavern** allowed LH to tour the cave with the Palmer's and **Michael Queen**, meet with Dale Pate, and chat with **Cave Research Foundation** restoration crew members about the painstaking work they are doing in the cave. LH attended (as an audience member) a House Committee on Resources Oversight Field Hearing on *Examining the Impacts of the **Endangered Species Act** on Southern New Mexico* in Carlsbad, NM.

The final version of a Cooperative Agreement between the National Park Service and the City of Carlsbad to transfer \$1,956,900 was sent (without signatures) to the City to apply towards construction of the **NCKRI headquarters building**, which the City will own. We anticipate that the signed version will arrive soon. LH met with architect Beryl Durham and his staff, Jon Tully (Carlsbad), and Lorraine Allen (*Carlsbad Tomorrow*) concerning the **headquarters building** and slight revisions to previous drawings. The architects had already addressed our concerns with the plans in a meeting the following week, when we also discussed interior finishing issues in preparation for releasing a request for bids on the construction project.

All NCKRI staff members met for a half-day in Carlsbad to discuss, plan, and schedule **future grant applications** on behalf **program development** for the Institute. The team also reviewed the **building plans** and discussed future laboratory uses and needs at the site.

**Patricia Seiser**, a well-known caver who completed a PhD last year with a dissertation that explored the concept of cave wilderness, recently moved to Carlsbad. She met with the NCKRI staff to explore ideas on how she can help the Institute develop **public outreach and education grant proposals**.

LH worked on developing two **National Science Foundation science education grant proposals**, including discussions with local leaders in the NPS, USFS, and BLM to discuss how the proposed grant activities might integrate with their interpretive efforts. She and TS also met with Lorraine Allen of *Carlsbad Tomorrow* to discuss integration of grant proposal plans with the City's long-term goal of building a major science education center.

LH continued working on the **business plan**, as time allowed.

NPS staff continued working with the **National Speleological Society** on a draft Cooperative Agreement towards the publication of the ***Journal of Cave and Karst Studies***.

LH provided a grant **proposal review** for the **National Science Foundation**.

LH provided comments of a draft **U.S. Geological Survey** statement on the research needs for sustainable groundwater resources.

The Institute received copies of the **Oklahoma Geological Survey Circular 109, *Evaporite karst and engineering/environmental problems in the United States***. This important volume received partially financial support from NCKRI-NPS and the U.S. Geological Survey. NCKRI scientist Lewis Land has a paper in the book. Lewis Land (LL) led a one-day field trip around old **Lake McMillan**, the former reservoir for irrigation water in the Carlsbad Irrigation District. The field trip focused on the impact of sinkholes, gypsum caves, and other karst features on the surface hydrology of the area around Carlsbad.

LL continued collection and analysis of hydraulic head data from the **Artesian Aquifer** in the northern part of the Roswell Artesian Basin. The Artesian Aquifer is a karstic aquifer with multiple evidence of non-darcian conduit flow, and the principal source of water for irrigation and municipal water supply in southeastern New Mexico.

Penny Boston and Diana Northup (University of New Mexico) participated in filming a segment on their work in Spider Cave with a film crew from the **Discovery Channel**. This will be used along with the work of other cave scientists in a new orientation film on caves, cave conservation, and cave science to be shown at National Parks with cave resources. Additionally, a half hour long broadcast show will be cut from this footage for **The Science Channel**.

**PLANS:** Anticipated activities for the near future include:

A request for bids on the **headquarters construction project** is currently anticipated for late summer or early fall 2004.

The Institute will continue working on a draft **business/operations plan**.

Dr. **Tom Kunz** expects to be in Carlsbad in July or August for bat research at Carlsbad Caverns, and has indicated his willingness to give a public presentation in our **lecture series**.

Dr. **Kathy Lavoie** of State University of New York – Plattsburgh hopes to help NCKRI with **program development** between mid-July and mid-August.

NPS staff will continue working with **New Mexico Tech** on a draft Cooperative Agreement establishing NMT as the **joint administrative partner** in NCKRI.

NPS staff will continue working with the **National Speleological Society** on a draft Cooperative Agreement towards the publication of the ***Journal of Cave and Karst Studies***.

Planning for the **exhibits** in the NCKRI headquarters building and association informal science **education** operations has recently become a priority with the staff. Work will continue to write grant proposals to bring a variety of partners into the effort and to support this work.

NCKRI and the National Park Service will sponsor a theme session at the fall 2004 **Geological Society of America** meeting entitled *From Subterranean Crawlways to Scientific Hallways: Research on Our Public Cave and Karst Lands*. **A Call for Papers** and more information is available at:

<http://www2.nature.nps.gov/nckri/news.htm>. Abstracts are due by July 13<sup>th</sup> at <http://www.geosociety.org/meetings/2004/>.

**NCKRI STAFF:**

PB – Penelope Boston, New Mexico Institute of Mining and Technology in Socorro, NM

LH – Louise Hose, National Park Service in Carlsbad, NM

LL – Lewis Land, New Mexico Bureau of Geology and Mineral Resources in Carlsbad

TS – Thomas Strong, New Mexico Institute of Mining and Technology in Carlsbad, NM